

149th Conference
Scientific Federation



ANA Crowne Plaza Osaka 1-3-1, Dojimahama,
Kita-ku, Osaka, 530-0004, Japan



Scientific Program

2nd World Conference on

Robotics and Artificial Intelligence

June 10-11, 2019 | Osaka, Japan



Scientific Federation

Panjagutta, Hyderabad, Telangana-500082, India

Day 1 June 10, 2019

Suehiro Hall

- 09:00-09:45 Registrations
09:45-10:00 Introduction & Opening Words
Honorary Speech by Chair of the conference

Plenary Session

- 10:00-10:40 **Title: Cognitive Robots and Autonomous Systems Underpinned by the Abstract Intelligence Theory**
Yingxu Wang, University of Calgary, Canada
- 10:40-11:20 **Title: Visual Servo for Capture of Non-cooperative Spacecraft by Autonomous Robotics**
Zheng H. Zhu, York University, Canada

Refreshments Break 11:20-11:35 @ Foyer

- 11:35-12:15 **Title: Keys to Success in Fielding Robotics**
Mel Torrie, Chief Executive Officer, Founder, Autonomous Solutions, Inc., USA
- 12:15-12:55 **Title: Enhancing Maritime and Public Safety with AI and Optimization**
Hoong Chuin Lau, Singapore Management University, Singapore

12:55-13:00 **Group Photo**

Lunch Break 13:00-13:40 @ Restaurant

Keynote Session

- 13:40-14:10 **Title: An AI-Based System for Evaluating the Health Condition and Predicting the Remaining Useful Life of Critical Machines with Real Industry Case Study**
Peter W. T. Tse, City University of Hong Kong, Hong Kong
- 14:10-14:40 **Title: Natural Language Computation in Robotics and Artificial Intelligence**
Anna Maria Di Scullo, University of Quebec, Canada
- 14:40-15:10 **Title: Robotics Intelligent Cognitive Control Based on Quantum Soft Computing**
Sergey V. Ulyanov, Dubna State University, Russia
- 15:10-15:40 **Title: Medical Robotics – Reshaping Future in Synergy with AI**
Bojan Jerbić, University of Zagreb, Croatia
- 15:40-16:10 **Title: Intelligent Cloud Robotics and Robotics-As-A-Service: Value Proposition for the Telecommunication Companies**
Julius Golovatchev, Detecon International GmbH, Germany

Refreshments Break 16:10-16:25 @ Foyer

- 16:25-16:55 **Title: Industry 4.0 & Intelligent Robots**
Wahied Gharieb Ali Abdelaal, Egyptian Academy for Engineering and Advanced Technology, Egypt
- 16:55-17:25 **Title: Intellectual Analysis of Object Contours. Technical Vision of Robots**
Sergey O. Kramarov, Surgut State University, Russia

Oral Sessions

Sessions Robot Localization and Mapping | New Approaches in Automation and Robotics | Machine Vision for Robotics

Session Chair Bojan Jerbić, University of Zagreb, Croatia

- 17:25-17:50 **Title: Development of an Autonomous Mobile Robot Using Environmental Map Based on Slam and Deep Learning**
Minoru Sasaki, Gifu University, Japan
- 17:50-18:15 **Title: Cognitive, Connective, Complexifying Intelligence for Dealing with Diversity, Dispersiveness, Dimensionality of Living Phenomena in the Era of 100-Year Life**
Yoshifumi Nishida, National Institute of Advanced Industrial Science and Technology, Japan
- 18:15-18:40 **Title: Description Guided Monocular Autonomous Navigation in Rough Terrain**
Marek Ososinski, Tadano Ltd, Japan

Pannel Discussion

Closing the Conference for the Day 1

Day 2 June 11, 2019

Suehiro Hall

Keynote Session

- 09:00-09:30** **Title: Robotic Surgery Implementation in A Safety-Net Academic Hospital**
Shaneeta Johnson, Morehouse School of Medicine, United States

Oral Sessions I

Sessions Tele-Robotics, Medical Robotics | Genetic Algorithms | Pattern Recognition | Human Machine Interface

Session Chair Zheng H. Zhu, York University, Canada

Session Co-chair Sergey V. Ulyanov, Dubna State University, Russia

- 09:30-09:55** **Title: Robotic System da Vinci in the Field of Vascular Surgery**
Petr Stadler, Na Homolce Hospital, Czech Republic
- 09:55-10:20** **Title: Detection of Symptom Causes Through Multiple Channel Treatment**
Issa Salim, Rashid Hospital, UAE
- 10:20-10:45** **Title: How AI will Disrupt and Transform Manufacturing and Human Labor Market**
Dennis Anderson, St. Francis College, USA
- 10:45-11:10** **Title: Waiters Bots in Restaurants – An Operational Design**
Edwin Foo, Nanyang Polytechnic, Singapore

Refreshments Break 11:10-11:25 @ Foyer

- 11:25-11:50** **Evolutionary Computation Approaches to Optimize Distributed Energy Resources Operation**
Pablo Cortes, Universidad de Sevilla, Spain
- 11:50-12:15** **Title: Multimodal Biometric Fusion of Face, Iris and Conjunctival Vasculature to Improve Accuracy**
Noorjahan Khatoun, Advanced Technical Training Centre (ATTC), India
- 12:15-12:40** **Title: Teaching Children Through Augmented Creativity and Hybrid Interfaces**
Janio Jadán-Guerrero, Universidad Tecnológica Indoamérica, Ecuador
- 12:40-13:05** **Title: A Sociological Approach to the Impact of A.I. and Robotics on Future Societies**
Vassiliki Stavropoulou, University of Athens, Greece

Lunch Break 13:05-14:00 @ Restaurant

Oral Sessions II

Sessions AI-Based Methods | Reinforcement Learning and Deep learning | AI Applications

Session Chair Hoong Chuin Lau, Singapore Management University, Singapore

Session Co-chair Wahied Gharieb Ali Abdelaal, Egyptian Academy for Engineering and Advanced Technology, Egypt

- 14:00-14:25** **Title: Detecting Change Using HTM For A Security Surveillance Application**
Wim J.C. Melis, University of Greenwich, United Kingdom
- 14:25-14:50** **Title: Cyber Threat and Risk Assessment in IoT-based Smart Industries: Challenges and Possible Solutions**
Marzieh Jalal Abadi, Canadian Institute for Cybersecurity, Canada
- 14:50-15:15** **Title: Vibration Control of a Multilink Flexible Manipulator Using Artificial Neural Network**
Waweru Njeri, Gifu University, Japan
- 15:15-15:40** **Title: Visual Path Tracking Control Using Reinforcement-Recurrent Neural Networks for Autonomous Wheeled Robots**
Chih-Hung Wu, National University of Kaohsiung, Taiwan
- 15:40-16:05** **Title: Attentional Communication and Cross-modal Fusion for Multi-Agent Cooperation via Reinforcement Learning**
Liang Zhixuan, Hong Kong Polytechnic University, Hong Kong

Refreshments Break 16:05-16:20 @ Foyer

- 16:20-16:45** **Title: Extension of the Three Laws of Robots to Autonomous and Artificial Intelligent Systems: Towards A Global AI Charter**
Muard Al Shibli, Abu Dhabi Polytechnic, United Arab Emirates
- 16:45-17:10** **Title: Artificial Intelligent Medical Orthosis Based on Continuous Electrophysiological Signal Classifiers**
Jorge Isaac Chairez Oria, National Polytechnique Institute, México
- 17:10-17:35** **Title: Ethics of AI in the U.S. Criminal Justice System**
Hunt Cara, New York University, USA

Poster Presentations

- P-001** **Title: Reference Tracking in Human-Closed Loop Systems with Deep Reinforcement Learning**
Maria A. Arroyo, University of los Andes, Colombia
- P-002** **Title: 3D Leaf Segmentation on Plant Point Clouds**
Dawei Li, Donghua University, China
- P-003** **Title: Using Pattern Recognition Techniques to Identify Different Waves in ECGs**
Deng-Yi Wu, National Sun Yat-Sen University, Taiwan
- P-004** **Title: The Possibility of Artificial Intelligence in the Development of the Third Mission of Universities**
Sergey O. Kramarov, Surgut State University, Russia

End of the Conference

Bookmark Your Dates

3rd World Conference on

Robotics and Artificial Intelligence

June 18-19, 2020 | Saint Petersburg, Russian Federation

